Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-8. (Cancelled)

9. (Currently Amended) A process for producing lactoperoxidase comprising:

a step (1) for bringing one or more milk materials, which include lactoperoxidase, into contact with a cation exchanger having weakly acidic groups as ion exchange groups to thereby effect adsorption of the lactoperoxidase ~~treatment~~;

a step (2) for washing the cation exchanger after said adsorption of the lactoperoxidase ~~treatment~~;

a step (3) for bringing said washed cation exchanger into contact with a leaching solvent which elutes the lactoperoxidase, wherein an ionic strength of the leaching solvent is 0.07 to 0.3, to thereby obtain a leaching solution, which includes the ~~having~~ lactoperoxidase ~~eluted into said leaching solvent~~;

a step (4) for concentrating said leaching solution by passing a portion of said leaching solution through an ultrafiltration membrane so that [[a]] the protein content in said concentrated leaching solution, which is retentate, becomes 0.9 to 15%, and wherein proteins other than the lactoperoxidase precipitate out in the retentate ~~to thereby effect precipitation of proteins other than lactoperoxidase in the concentrated leaching solution which is retentate, wherein the precipitation is not re-dissolved in purified water~~; and

a step (5) for obtaining a lactoperoxidase solution by removing the precipitate ~~precipitation of impurities~~ from ~~said concentrated leaching solution~~ the retentate.

10. (Previously Presented) A process for producing lactoperoxidase according to claim 9, wherein a lactoferrin adsorption capacity of said cation exchanger is 85 mg/10 ml or more.

11. (Previously Presented) A process for producing lactoperoxidase according to claim 9, wherein said ion exchange groups are carboxymethyl groups.

12. (Previously Presented) A process for producing lactoperoxidase according to claim 10, wherein said ion exchange groups are carboxymethyl groups.

13-19. (Cancelled)

20. (Previously Presented) A process for producing lactoperoxidase according to claim 9, wherein the leaching solvent used in said step (3) is an aqueous solution containing at least one salt selected from a group consisting of sodium chloride, potassium chloride, calcium chloride, and magnesium chloride.

21. (Previously Presented) A process for producing lactoperoxidase according to claim 10, wherein the leaching solvent used in said step (3) is an aqueous solution containing at least one salt selected from a group consisting of sodium chloride, potassium chloride, calcium chloride, and magnesium chloride.

22. (Previously Presented) A process for producing lactoperoxidase according to claim 11, wherein the leaching solvent used in said step (3) is an aqueous solution containing at least one

salt selected from a group consisting of sodium chloride, potassium chloride, calcium chloride, and magnesium chloride.

23. (Cancelled)

24. (Previously Presented) A process for producing lactoperoxidase according to claim 9, further comprising a step for obtaining solid lactoperoxidase by removing the solvent of the lactoperoxidase solution obtained in said step (5).

25. (Previously Presented) A process for producing lactoperoxidase according to claim 10, further comprising a step for obtaining solid lactoperoxidase by removing the solvent of the lactoperoxidase solution obtained in said step (5).

26. (Previously Presented) A process for producing lactoperoxidase according to claim 11, further comprising a step for obtaining solid lactoperoxidase by removing the solvent of the lactoperoxidase solution obtained in said step (5).

27-28. (Cancelled)

29. (Previously Presented) A process for producing lactoperoxidase according to claim 20, further comprising a step for obtaining solid lactoperoxidase by removing the solvent of the lactoperoxidase solution obtained in said step (5).

30. (Previously Presented) A process for producing lactoperoxidase according to claim 24, wherein a purity of the solid lactoperoxidase is 80% or more.

31. (Previously Presented) A process for producing lactoperoxidase according to claim 25, wherein a purity of the solid lactoperoxidase is 80% or more.

32. (Previously Presented) A process for producing lactoperoxidase according to claim 26, wherein a purity of the solid lactoperoxidase is 80% or more.

33. (Cancelled)

34. (Previously Presented) A process for producing lactoperoxidase according to claim 28, wherein a purity of the solid lactoperoxidase is 80% or more.

35. (Previously Presented) A process for producing lactoperoxidase according to claim 29, wherein a purity of the solid lactoperoxidase is 80% or more.

36. (Previously Presented) A process for producing lactoperoxidase according to claim 9, wherein no buffer solution is used in any step of (1) to (5).